

REMARK/ARGUMENTS

Applicants respectfully request reconsideration of this application in view of the foregoing amendments to the claims and the following comments.

I. The Rejection of Claims 1-28 under 35 U.S.C. § 112

In the Office Action mailed July 25, 2006, claims 1-28 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. In particular, the Examiner alleged that the claims contain subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors had possession of the claimed invention. Applicants respectfully traverse this rejection, for the reasons set forth below.

The specific claim language identified by the Examiner as allegedly lacking sufficient support in the specification is the following feature in independent claims 1 and 13, calling for the heat-soaking step to be performed:

“without the application of pressure or vacuum to the insert, such that the insert is warmed but does not lose its structural integrity.”

Applicants acknowledge that the specific language “without the application of pressure or vacuum” is not set forth in the specification. However, as acknowledged in MPEP § 2173.05(i), “lack of literal basis in the specification for a negative limitation may not be sufficient to establish a *prima facie* case for lack of descriptive support” *Ex parte Parks*, 30 U.S.P.Q.2d 1234, 1236 (Bd. Pat. App. & Inter. 1993). As stated in the *Ex parte Parks* opinion, “[c]learly, the observation of a lack of literal support does not, in and of itself, establish a *prima facie* case for lack of adequate descriptive support under the first paragraph of 35 U.S.C. 112.”

In the cited *Ex parte Parks* opinion, claims had been rejected under 35 U.S.C. § 112, first paragraph, based on their recitation of the limitation “in the absence of a catalyst.” The specification apparently lacked such a specific recitation. In *reversing* the claim rejection, the Board stated as follows:

“...it cannot be said that the originally-filed disclosure would not have conveyed to one having ordinary skill in the art that appellants had possession of the *concept* of conducting the decomposition step

generating nitric acid in the absence of a catalyst. See, for example, column 5 of the '562 patent, first paragraph, wherein FIG. 4 is discussed. Pyrolysis temperatures of between 600°C and 700 °C, and above 700°C were employed to achieve conversion of chemically bound nitrogen to nitric oxide. Smooth conversion was obtained above 700°C, while the optimum conversion was found to occur above 900°C. Throughout the discussion which would seem to cry out for a catalyst if one were used, no mention is made of a catalyst.” (Underlining added.) *Ex parte Parks*, at 1236.

Thus, the Board concluded that the patent specification *impliedly* disclosed the negative claim limitation calling for “the absence of a catalyst,” by virtue of its detailed description of the process without mentioning a catalyst one way or the other. Persons skilled in the art would have understood from this detailed description that, if a catalyst were called for, it would have been included. The absence of a discussion of a catalyst clearly implied that one was not needed.

Similarly, in our case, the specification includes a lengthy detailed description of the process for pre-conditioning the inserts by heat-soaking them immediately before molding Paragraphs [0021]-[0026] of the specification set forth detailed information about this pre-soaking step, using a variety of alternative heat sources. Nowhere in this detailed description is there any mention of the need for pressure or vacuum to be applied to the insert. If pressure or vacuum were needed, this detailed discussion “would seem to cry out” for a description of it.

Persons skilled in the art, therefore, would have understood that the heat-soaking step did *not* need to be accompanied by the application of pressure or vacuum. Under the authority of MPEP § 2173.05(i) and *Ex parte Parks, supra*, the lack of a literal basis in the specification for the negative limitation calling for no application of pressure or vacuum to the insert is not sufficient to establish a *prima facie* case for lack of descriptive support.

The final part of the claim language alleged by the Examiner to be inadequately supported in the specification is the phrase “such that the insert is warmed but does not lose its structural integrity.” Applicants disagree. Direct support for this phrase can be found in the last sentence of paragraph [0024] of the specification, which reads as follows:

The intensity should be sufficient to warm the insert, but not to soften it to the point that it loses its structural integrity.

For these reasons, the rejection of claims 1-28 under 35 U.S.C. § 112, first paragraph, is improper and should be withdrawn.

II. The Rejection of Claims 1-28 under 35 U.S.C. § 103(a)

Also in the Office Action, claims 1-28 were rejected under 35 U.S.C. § 103(a), as allegedly obvious over U.S. Patent No. 5,827,614 to Bhalakia et al. (the “Bhalakia patent”), taken either alone or in view of U.S. Patent No. 6,090,336 to Hirmer et al. (the “Hirmer patent”). Applicants respectfully traverse this rejection, for the reasons set forth below.

In making this rejection, the Examiner acknowledged the failure of the Bhalakia patent to explicitly teach several features of Applicants’ claimed invention, including the following features: (1) the insert is heat-soaked; (2) the insert has an initial curvature measurably different from that of the mold cavity; and (3) the particular use of IR, UV, microwave, and radio frequency heating.

Regarding the claim feature (1), which relates to heat-soaking, the Examiner asserted that the molds disclosed in the Bhalakia patent are heated to a temperature of 265°C (col. 21, line 5) and that this disclosure essentially renders obvious the step of heat-soaking Bhalakia’s plate [17]. The Examiner cited the Hirmer patent as further support for preheating a film in an injection mold, to improve bonding.

Regarding the claim feature (2), which relates to the insert’s initial curvature, the Examiner asserted simply that it is “within the skill level of the art to preshape the insert so that its curvature is measurably different than that of the mold recess dependent on need to exhaust air form [sic] the mold.” Similarly, regarding the claim feature (3), which relates to the use of infrared heating etc., the Examiner asserted simply that the “exact heating method used would have been within the skill level of the art.”

Applicants respectfully disagree with the Examiner’s assertions about the obviousness of modifying the method of the Bhalakia patent to incorporate the three identified claim features. Nevertheless, to advance the prosecution of this application, Applicants have now amended independent claims 1 and 13 to specify that the method of pre-conditioning an insert includes an additional step of “providing an irradiation source separate from the mold

cavity” and that the heat-soaking step is accomplished “via radiant heat from the irradiation source.” Ample support for these added features can be found, for example, in paragraphs [0009], [0022]-[0026], and [0033] and Examples 4-19 of the written description. Applicants have found this specific method effective even when the inserts are relatively thick and even when the inserts have curvatures measurably different from the molding surface.

The Bhalakia patent might be construed as implicitly disclosing a method for preconditioning an insert for use in injection molding an optical part, wherein the insert is heat-soaked by the elevated mold temperature prior to the injection molding. *See, Bhalakia* patent, col. 21, line 5. However, Bhalakia’s heat-soaking is *not* accomplished using radiant heat received from an irradiation source separate and apart from the mold cavity. Moreover, Bhalakia’s heat-soaking is *not* accomplished without the application of pressure or vacuum to the insert. Two excerpts from the Bhalakia patent amplify on this requirement for the application of pressure or vacuum:

No matter whether the plates **17** are pre-shaped outside the mold cavities **104** or are shaped in the mold cavities **104**, each plate **17** should be placed in the respective mold cavity **104** so that a pneumatic seal (not shown), a mechanical seal (not shown) or a combination pneumatic/mechanical seal (not shown) is created between each plate **17** and the respective convex surface **126** of the mold half **122**. (col. 18, lines 23-28).

Sealing between plates **17** and respective convex surfaces **126** *is necessary* to prevent molten thermoplastic that is injected into the mold cavities **104** from flowing between the plates **17** and respective convex surfaces **126**. (col. 18, lines 41-44, italics added).

The Bhalakia patent lacks any suggestion or teaching that heat alone is a sufficient pre-conditioning of an optical part insert before injection-molding, or that radiant heat derived from an irradiation source separate from the mold cavity is a particularly effective in heat-soaking the insert. The Examiner has tacitly admitted the failure of the Bhalakia patent to suggest these features. Moreover, the Examiner has failed to identify any other suggestion or teaching in the art (including the Hirmer patent) that would have caused persons skilled in the art to have modified Bhalakia’s method to incorporate these two features.

For these reasons, amended independent claims 1 and 13 both define a method that is not shown or suggested by the Bhalakia and Hirmer patents, even if their disclosures were to be combined. The § 103 rejection of independent claims 1 and 13, therefore, is improper and should be withdrawn.

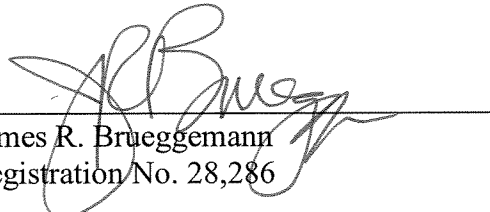
Claims 2-12 and 14-28 depend from amended independent claims 1 and 13, respectively, adding method features that further distinguish over the cited Bhalakia and Hirmer patents. For this reason, and for the reasons set forth above with respect to claims 1 and 13, the § 103 rejection of claims 2-12 and 14-28, therefore, is improper and should be withdrawn.

III. Conclusion

This application should now be in condition for a favorable action. Issuance of a notice of allowance is respectfully requested. If the Examiner believes that a telephone conference with Applicants' undersigned attorney of record might expedite prosecution of the application, he is invited to call at the telephone number indicated below.

Respectfully submitted,

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